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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/029,148	12/28/2001	Francois J. Blouin	123-021	5222

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EXAMINER

GAYESKI, MICHAEL R

ART UNIT PAPER NUMBER

2143

DATE MAILED: 01/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/029,148	<b>Applicant(s)</b> BLOUIN ET AL.	
	<b>Examiner</b> Michael R. Gayeski	<b>Art Unit</b> 2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10/12/2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

*11/6*

### DETAILED ACTION

1. The amendment filed 10/12/2005 has been entered. Claims 43-46 have been canceled. Claims 1-42 remain pending.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims **1-42** rejected under 35 U.S.C. 102(b) as being anticipated by Load-Sensitive Routing of Long-Lived IP Flows (hereinafter 'Shaikh').

4. With regard to **claim 1**, Shaikh teaches the substantive limitations of the claim, including:

routing means operating at a first stratum on a first timescale for providing routing functions (Page 218, Section 2.2);

resource allocation means operating at a second stratum on a second timescale for providing resource allocation functions (Page 218, column 2, paragraphs 3 and 4; and Page 219, 2<sup>nd</sup> column, paragraph 2: "If the network consists of ATM switches...");

provisioning means operating at a third stratum on a third timescale for providing provisioning functions (Page 220, Section 3.3)

each successive timescale being coarser than its preceding timescale (See Page 219, paragraph 1: "Then, once the accumulated size..."; and Page 220, Column 2,

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Paragraph 3 – Page 221, Column 1, Paragraph 1: Also note that a layer 3 routing function inherently operates on a finer (individual packet) timescale);

and wherein a lower stratum network function provides network information to a higher stratum network function, said higher stratum network function making control decisions based on said network information (Page 219, column 2, paragraphs 2 and 3; and Page 220, Column 2, Paragraph 3).

5. With regard to **claims 2-8** Shaikh further teaches said routing functions provide said network information in the form of a routing metric (Page 219, Column 2, Paragraphs 1 and 2); said routing index metric is created based on automated measurement of a plurality of routes in a route set (Page 219, Column 2, Paragraph 3); wherein said measurements comprise state information measurements along an entire route (Page 219, Column 2, Paragraph 3); wherein said routing index metric is based on route depth (Page 219, Column 2, Paragraph 1); wherein said routing index metric is based on constituent traffic (Page 219, Column 2, Paragraph 1); wherein said routing metric is based on traffic classification with respect to defined thresholds (Page 219, Column 2, Paragraph 1); and further comprising means for measuring efficacy of route selection in said network based on said routing index metric (Page 220, Column 1, Paragraph 1).

6. With regard to **claims 9-12**, Shaikh further teaches that the resource allocation functions provide said network information in the form of a resource index metric (Page

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220, Column 2, Paragraphs 2 and 3); wherein said resource allocation index metric is created based on automated measurements of prior allocation data (Page 219, Column 1, Paragraph 1); means for measuring efficacy of resource allocation in said network based on said resource allocation index metric (Page 220, Column 220, Paragraph 1); said resource allocation functions comprise functions which configure the network so as to satisfy resource allocation requirements (Page 219, Column 2, Paragraphs 2: "The dynamic route could be established by....").

7. With regard to **claims 13-16**, Shaikh further teaches that said provisioning functions provide said network information in the form of a constituent traffic metric (Page 219, Column 2, Paragraph 3; and Page 220, Column 1, Paragraph 1); wherein said provisioning functions provide said network information based on automated measurements of the amount of traffic carried on various links of the network (Page 220, Column 1 Paragraph 1); wherein said measurements comprise measurements of accepted primary traffic, accepted secondary traffic, and rejected traffic (Page 220, Column 2, Paragraph 3 – Page 221, Column 1, Paragraph 1); and wherein said constituent traffic metric determines network provisioning requirements (Page 220, Column 2, Paragraph 2).

8. With regard to **claim 17**, Shaikh further teaches said routing means includes and edhe controller, said resource allocation means includes a core controller, and said provisioning means includes a network controller (Page 215, Column 1, Paragraph 1 –

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Page 215, Column 2, Paragraph 1: These components are inherent to any large backbone network).

9. With regard to **claims 18-20**, Shaikh further teaches said resource allocation means and said provisioning means are integrated (Page 219, Section 3: Allocation and Provisioning are integrated); wherein said second stratum and said third stratum are integrated (Page 220, Column 2, Paragraph 3); and wherein said second timescale and said third timescale are the same timescale (Page 220, Column 2, Paragraph 3).

10. With regard to **claims 21-30**, they present the same limitations as claims 1-3, 15, 8, 12, 10, 11, 13, 14, and 16, respectively, in method rather than apparatus form, and are rejected for similar reasons.

11. With regard to **claim 31**, Shaikh teaches the substantive limitations of the claim, including:

receive a connection request, identify a sink node from said connection request, select a route set based on identification of said source node and sink node, choose a candidate route from said route set in order of rank (Section 3.1 on page 219);

signal a connection on said candidate route, receive measurements taken along said candidate route, determine a routing index value for said candidate route, and update a routing index metric with said route index value, and transmit resource

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allocation requirements to a core node controller (Page 219, Column 2, Paragraphs 2 and 3).

12. With regard to **claims 31-36**, they present no substantive limitations over claims 4-8, respectively, and are rejected for similar reasons.

13. With regard to **claims 37-42**, they present no substantive limitations over claims 1, 1-3, 15, 8, 12, 10, 11, 13, 14, and 16, respectively, and are rejected for similar reasons.

### ***Response to Arguments***

14. Applicant's arguments, see Remarks, Pages 10, 11, and 12, filed 10/12/2005, with respect to the rejection(s) of claim(s) 1-40 under 35 U.S.C 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn.

However, upon further consideration, a new ground(s) of rejection is made in view of Shaikh as described above.

15. The previous rejections under 35 U.S.C 101 are withdrawn in light of applicant's amendment.

### ***Conclusion***

16. **Examiner's Note:** Examiner has marked certain passages in the copy of the references for the convenience of both the Examiner and the Applicant. Although the

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marked sections are representative of the teaching of the art and applied to specific limitations within individual claims, other passages and figures may apply as well.

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 6,801,502 appears to be a patent related to the teachings of Shaikh.

Optical Networking and Real-time Provisioning teaches several aspects of the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael R. Gayeski whose telephone number is 571-272-0978. The examiner can normally be reached on M-F: 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on 571-272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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Michael R Gayeski  
Examiner  
Art Unit 2143

mrg  
12 January 2005

A handwritten signature in black ink, appearing to read "Jeffrey PWU", written in a cursive style.

JEFFREY PWU  
PRIMARY EXAMINER